DOCUMENT RESUME

ED 360 449 UD 029 404

AUTHOR	Brunner, Ilse; Hopfenberg, Wendy
TITLE	Growth and Learning in Accelerated Schools: Big Wheels and Little Wheels Interacting.
PUB DATE	Dec 92
NOTE	48p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA, April 20-24, 1992).
AVAILABLE FROM	Accelerated Schools Project, Center for Education Research at Stanford 109, Stanford University, Stanford, CA 94305-3084.
PUB TYPE	Reports - Descriptive (141) -- Speeches/Conference Papers (150)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Academic Achievement; Case Studies; Community Development; Educational Change; *Educational Cooperation; Educational Innovation; Educational Responsibility; Elementary School Students; Intermediate Grades; *Middle Schools; Models; Parent Participation; School Based Management; *School Restructuring; Teacher Expectations of Students; Teaching Methods
IDENTIFIERS	*Accelerated Schools; Middle School Students; Teacher Empowerment

ABSTRACT

The Accelerated Schools Project has the overall purpose of creating the best schools for all children so that every child has the opportunity to become a creative, critical, and productive member of society. The project represents a philosophy and a process for transforming conventional schools into accelerated ones where powerful learning experiences are daily occurrences for all members of the school community. The three central principles of accelerated schools are: unity of purpose through active collaboration of parents, teachers, students, staff, and community; empowerment through responsibility; and building on strengths. The Accelerated Schools Project staff develops, refines, and transmits the model to school practitioners who actually use the model to transform school communities. The concept of "big wheels" and "little wheels" interacting has helped participants in the Accelerated Schools Project make sense of the changes occurring in accelerating school sites. The "big wheels" are the formal, explicit components of the state-of-the-art accelerated schools model that are bought into by all participants. For school communities, involve engaging collaboratively in bringing the model to life. The "little wheels", on the other hand, are the spin-offs of the public and collaborative big wheel experiences; they are the informal innovations that individuals and small groups initiate as a result of participating in big wheel activities. Two case studies from an inner-city middle school demonstrate the interactions of the big and little wheels in the areas of family involvement and instruction. These case studies illustrate that all components of the accelerated schools model have the potential to spin off little wheels and that design and implementation are necessarily integrated. (SLD)

ED360449

GROWTH AND LEARNING IN ACCELERATED SCHOOLS: BIG WHEELS AND LITTLE WHEELS INTERACTING

Ilse Brunner and Wendy Hopfenberg

December 1992

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
E. M. Keller
Accelerated Schools Proj.
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC).

This is the final draft of a paper "The Interactive Production of Knowledge in Accelerated Schools" presented as part of the symposium on "Collaborative Change in Accelerated Schools: Big Wheels and Little Wheels Interacting," at the annual meeting of the American Educational Research Association, San Francisco, California, April 21-24, 1992. Ilse Brunner is the Coordinator of Satellite Centers and Wendy Hopfenberg is the Associate Director at the National Center for the Accelerated Schools Project at Stanford University. Copies of this paper can be obtained from Claudette Sprague, Accelerated Schools Project, CERAS 109, Stanford University, Stanford, CA. 94305-3084.

UD029404

BEST COPY AVAILABLE

GROWTH AND LEARNING IN ACCELERATED SCHOOLS: BIG WHEELS AND LITTLE WHEELS INTERACTING

by Ilse Brunner and Wendy Hopfenberg

I. INTRODUCTION

The most exhilarating part of our work on the Accelerated Schools Project is our active collaboration at school sites. It is inspiring to see how previously isolated stakeholders in a school come together to form a community of learners by taking ownership of the accelerated schools philosophy and process. While working intensively in the schools, we have been intrigued by our observations of the transformation process coming to life. By observing this process closely, we abstracted a growth and learning pattern that we labeled "big wheels and little wheels interacting." Using this concept, we then carefully analyzed several experiences over time to illustrate the interaction of individual and large group change processes that produce learning and long-term changes within whole school communities. After sharing this concept with others, we found that it helped participants in the Accelerated Schools Movement make sense of the tremendous magnitude of simultaneous, interactive, and long-term changes occurring at accelerating school sites. We also found that this same concept helped to explain the interactive nature between design and implementation, more specifically, how we incorporate our collaborative learning experiences back into the model.

In this paper, we analyze the pattern of big wheels and little wheels interacting in particular case settings. We begin by giving a brief background on the Accelerated Schools Project and describe the current accelerated schools model. After defining big wheels and little wheels, we analyze their interaction in two case studies and show how a school's growth pattern influences the accelerated schools model.

II. BACKGROUND OF ASP[1]

The Accelerated Schools Project has the overall purpose of creating the best schools for all children so that every child has the opportunity to succeed as a creative, critical, and productive member of our society. It represents a *philosophy* and a *process* for transforming conventional schools into accelerated schools where powerful learning experiences are daily occurrences for all members of a school community. The philosophy of the accelerated schools model encompasses the overall goal of the Project, the three principles of accelerated schools, the values embraced by accelerated schools, and a theory about powerful learning. The process is a systematic set of practices for "getting from here to there–" from conventional schools to accelerated ones.

PHILOSOPHY OF ACCELERATED SCHOOLS MODEL

The Overall Goal

Schools have typically had low expectations for at-risk students. Instead of viewing at-riskness as an internal trait, the Accelerated Schools Project offers a different definition – that of a child being in an "at-risk situation." Children are placed in an at-risk situation when there is a mismatch between the resources and experiences they get at home and the expectations they find at school. Since so many students enter school with a different set of skills and experiences than those on which the standard school curriculum is constructed, they are placed in at-risk situations.

---

[1] Much of this first section is drawn from Hopfenberg, Levin, Meister, and Rogers, (1990) "Towards Accelerated Middle Schools," and the Accelerated Schools Resource Guide (1993) Jossey-Bass, San Francisco.

Unfortunately, society has been satisfied if a particular school enrolling "at-risk" students was performing a bit better than "typical" schools enrolling at-risk students. However, no one would consider these "better than average" schools for at-risk students as prospective ones for their own children. The Accelerated Schools Project is built on the premise that we should want the same types of schools for all children as we want for our own children. This is the overall goal toward which all accelerated schools strive.

Three Central Principles

Accelerated Schools are built on the active practice of three central principles. (a) Unity of Purpose refers to an active collaboration among parents, teachers, students, support staff, administrators, and the local community toward setting and achieving a common set of goals for the school. These shared goals and values become the focal point of everyone's efforts. Clearly, a central element of the unity of purpose involves working to transform the school into an accelerated one that will make students academically able at an early date so that they can fully benefit from their further schooling experiences and adult opportunities. The all inclusive process of defining a common purpose is extremely important in and of itself. By including all members of an educational community from the start in the planning and design of educational programs, the implementation of those programs, and the evaluation of those programs, schools can ensure more cohesive educational efforts and a greater commitment to those efforts. Unity of purpose stands in contrast to disjointed planning, implementation and evaluation of educational programs, where various members of the school community have different purposes toward which they are striving.

(b) Empowerment coupled with responsibility refers to the ability of the participants of a school community in the school and at home to (1) make important educational decisions, (2) take responsibility for implementing those decisions, and (3) take responsibility for the outcomes of those decisions. The purpose is to break the present stalemate among administrators, teachers, parents, support staff, and students in which the participants tend to blame each other as well as other factors "beyond their control" for the poor educational outcomes of students. Unless all of the major actors can be empowered to seek a common set of goals and influence the educational and social processes to realize those goals, it is unlikely that the desired improvements will take place or be sustained.

(c) Building on strengths refers to utilizing all of the learning resources that students, parents, all school staff, and communities bring to the educational endeavor. In the quest to place blame for the lack of efficacy of schools in improving the education of students at-risk, it is easy to exaggerate weaknesses of the various participants and ignore strengths. Accelerated school communities actively look for and build upon the strengths of all students, parents, teachers, support staff, administrators, the district, and the local community as they implement the accelerated schools process and develop powerful learning experiences.

Underlying the accelerated principles and practices are a set of values, beliefs, and attitudes which, if shared, help create the culture for accelerated school change. Equity, participation, communication, collaboration, community, reflection, experimentation, trust, risk-taking, and the school as the center of expertise are among the central values that orient all actions of an accelerated school. Many of these values stem from the work of John Dewey.

Powerful Learning Theory: Integrated Curriculum, Instruction, and Organization

Our conception of powerful learning is based on the premise that the education we use with "gifted" children works well for ALL children. With this fact in mind, we must create situations where every school day encompasses the best things we know about learning.

Accelerated schools create powerful learning situations that motivate students to grow and succeed. In accelerated schools, students see meaning in their lessons and perceive connections between school activities and their real life. They learn actively and in ways that build on their own strengths. Accelerated school communities work together to create powerful learning experiences which provide opportunities for all children to develop their natural talents and gifts. These learning experiences require higher order thinking, complex reasoning, and relevant content. In such situations, children actively discover the curriculum objectives, rather than passively going through textbooks and filling out worksheets. At the same time, this type of learning environment requires organization and support, so that adults are challenged to create a safe environment for learning that extends far beyond the classroom into every aspect of the school, home and community. If we think about our own powerful learning experiences and what made those experiences so powerful, we will come up with some similar themes.

The second part of our learning philosophy is that we see every powerful learning experience as having three dimensions – "what" is taught (the content or curriculum), "how" the content is taught (instructional strategies), the context in which one galvanizes all available resources to achieve the "what" and "how" (context or organization includes the use of time, flexibility of the schedule,

deployment of staffing, funding, etc.). We see these three dimensions as *totally and necessarily integrated.*

THE ACCELERATED SCHOOLS PROCESS: GETTING FROM HERE TO THERE

In order to truly function as Accelerated Schools, school communities need to build their capacity to establish a unity of purpose, to make responsible decisions, and to build on strengths. For these reasons, we offer schools a systematic process they can use which results in a unified purpose, shared decision-making authority and responsibility, and building on the many strengths unique to each school site. The process is the vehicle school communities use to achieve their dreams.

A school community can initiate the Accelerated Schools process in set of interrelated steps. These steps take approximately three to five months to accomplish – some of the steps will involve full-time attention, while others can be accomplished as part of the normal course of the school day. First, the school ***takes stock*** of the "here –" where the school is at the onset of the change process. The entire school community gathers quantitative and qualitative information on the history of the school; data on students, staff, and school facilities; a description of curricular and instructional practices; information on the community and cultures of students and their parents; particular strengths of the school; data on attendance, and disaggregated test scores, and other measures of student performance. The process of collecting, analyzing, and discussing baseline information provides a useful record of the school's status at the beginning of the transformation process, which can be referred back to in order to measure progress over time. All members of the school community participate in setting out research questions, gathering data, and analyzing the data. Taking stock fosters a sense of ownership of the process and begins to build unity of purpose in the school.

During the taking stock process, the school community begins to ***forge a vision*** for the school that will become the focus of change. Again, the entire school community should engage in creating a vision – including teachers, support staff, principal, vice principals, parents, central office administrators, the community, and, most importantly, students. In forging a vision, all adult parties think about the kind of school they would want for their own children. The students think about characteristics of their dream school and what they want for themselves in the future. It is crucial for all parties who will be both involved in and affected by the planning, implementation, and/or evaluation of educational programs be included in this process. The all inclusive nature of defining a vision results in ownership of a common set of goals and long-term commitment to achieving those goals.

Next, the school community compares the taking stock information with the vision in order to become aware of the areas in which their current situation falls short of their vision. The school community compiles and synthesizes all of the differences between the present situation and the future vision. They may identify a very large number of challenges, but together, they ***set three to five initial priorities*** which will become the immediate, primary focus of the school.

After setting priorities, the school ***establishes its governance structures*** that focus on participatory decision-making. All staff and representative students and parents select one of the priority areas on which to work. These priority groups become cadres or small task forces that use the Inquiry Process to address their challenges. Representatives from the cadres, administrators, and other representatives from areas such as departments, grade levels, the student body, parents, etc. form the steering committee which serves as a clearinghouse for decision-making and communication. Decisions are made by the school community-as-a-whole.

The ***Inquiry Process*** is the method all members of the school community, whether in cadres or departments, or as individuals, use to move the school toward the vision and accelerated practices throughout the school. Through the Inquiry Process, teachers, administrators, and parents identify and define educational challenges, look for alternative solutions, and implement and evaluate those solutions. One full cycle of the process can take up to a full school year because it entails a wide range of issues which touch upon all facets of the school – on culture as well as pedagogical practices.

The Inquiry Process provides schools with the opportunity to examine challenges in an in-depth manner in contrast to the traditional sporadic in-service days. Inquiry also encourages the school community to produce knowledge as well as to transmit it – building on the many strengths at the school site. In addition, Inquiry empowers those at the school site to make the changes they know are best for students (Polkinghorn, Bartels & Levin 1990). It is important to note that Inquiry will lead different schools in extremely different directions since each school has different challenges, strengths, and visions.

III. A GROWTH PATTERN – BIG WHEELS AND LITTLE WHEELS INTERACTING

The Accelerated Schools model began six years ago as a set of ideas or a philosophy about creating accelerated schools (Levin 1987). Since then, our collective experience working collaboratively in a variety of schools across the country has contributed to the constant evolution of our model - from a philosophy of acceleration to the full philosophy and process described above.

As the model has evolved, we have also refined our strategies for transmitting it to schools. At first, we shared the model implicitly, through modeling and working together with schools, even offering solutions in the areas of curriculum and instruction. Now we are very explicit in the way we initially share the model with school communities. After initial training, we provide systematic follow-up at each school site using a Socratic questioning approach to build the capacity of the school community so that they internalize the accelerated schools philosophy and process and become self-sufficient and *self-renewing* organizations.

The accelerated schools model continues to evolve. This evolution is driven by an interactive learning process involving the Accelerated Schools Project staff (ASP)[2] who develop, refine, and transmit the model and the practitioners[3] who actually use the model to transform their school communities. The collaborative on-going experience of ASP staff with school communities implementing the model creates a natural and regular set of experiences for continued learning and growth. Instead of telling schools what to do and how they should operate, the ASP staff have taken a set of ideas and collaboratively worked to implement them at school sites. These interactive experiences merge the model and its implementation so that the developers/transmitters of the model immerse themselves in its practice and the practitioners contribute to its design.

---

[2] ASP refers to the Stanford Accelerated Schools Project Staff, Satellite Center staff, and Coaches in various districts throughout the country.

[3] Practitioners refers to those members of school communities who are actively engaged in using the ASP model to transform themselves (Teachers, parents, students, administrators, support staff, local community members...)

After five years of collaboratively working with schools to implement the model, we have observed an interaction and growth pattern at the school site. We have noticed that there seem to be "big wheels" and "little wheels" interacting which push a school's transformation process forward. We define big wheels as the formal, explicit components of the state-of-the-art accelerated schools model that are collaboratively bought into by all participants. The big wheels encompass the accelerated schools philosophy and process. In terms of our philosophy, the big wheel components include: our overall goal of creating the kinds of schools we would want for our own children for all children, the three principles of unity of purpose, empowerment coupled with responsibility, and building on strengths, and a theory about what creates powerful learning. In terms of the process, the big wheel components include: taking stock, forging a shared vision, setting priorities, creating governance structures, and using the Inquiry Process.

For school communities, the big wheels involve collaboratively engaging in bringing the model to life – transforming their school communities using the accelerated schools philosophy and process. The engagement in the big wheel components brings about long-term change in schools. For example, a school's cadre set up to understand and address the area of family involvement will eventually develop and institutionalize strategies that allow families to be partners in the education of their children. The outcomes of these big wheel efforts will be long-term in nature and unique for each accelerated school site.

Little wheels are the informal innovations initiated by individuals or small groups as a result of participating in the big wheel experiences. Little wheels are the spin-offs of the public and collaborative big wheel activities. We have observed that when individuals are immersed in the big wheel components, they are inspired to

take risks to try out something they believe will bring their learning community nearer to its vision.

In the school communities, little wheels occur as small, creative experiments by teachers, parents, students, support staff and administrators. For example, in one school a teacher became so inspired by the all inclusive process of creating an ambitious vision for the school community that he reconsidered his teaching approach with his so-called remedial students and decided to use the same stimulating and sophisticated techniques and materials he used with his "higher" classes in his "remedial" class as well. Within a few weeks, he reported excellent results and his own personal growth at a school-as-a-whole meeting.

Little wheel innovations are crucial to the accelerated schools model for at least four reasons. First, because big wheel processes take time and produce institutionalized changes over the long-run, little wheel innovations give participants an outlet for making some immediate changes thereby meeting all of our natural inclinations for wanting to see change happen quickly. This benefits the individual(s) making the change as well as the students, and others involved. Second, little wheel innovations give each and every member of the school community an opportunity to take responsibility for making improvements and changes in his/her own daily activities. It is important for everyone involved in the accelerated schools movement to search continuously for ways to reach a shared vision as part of his/her daily activities. Third, at times, pressing situations occur in schools which require immediate action. Finally, sometimes little wheel activities are so effective and powerful that they interact with and influence the big wheels. In an accelerated school, this interaction plays out as a schoolwide change supported by everyone.

There are many examples of big wheels and little wheels interacting to produce long-term change. In the example of the teacher above, his own risk-taking (along with that of others and a look at the research) gave the school the impetus to totally eliminate tracking. This example of big wheels and little wheels interacting is easy to understand. However, the overall interaction between big wheels and little wheels is quite complex as it embraces public and private transformations, large and long-term processes and small innovations, the radical transformation of entrenched structures and behaviors, and invisible changes in the thinking and feeling of individuals. It also involves formal and informal communication between the producers/transmitters of the model and members of the school communities who implement the model bringing it to life in different concrete situations. Finally, the interaction is played out in the cross-fertilization between the model and its implementation, the concepts and the experiences it creates.

This multi-layered interaction may best be illustrated through two case studies that show how different actors in the Accelerated Schools Movement come together as a community of learners and collaboratively produce knowledge that brings them nearer to a shared vision of the best schools they can create for children.

IV. BIG WHEELS AND LITTLE WHEELS INTERACTING – SPARKING EXCITEMENT, INNOVATION AND KNOWLEDGE PRODUCTION

We provide the following detailed case studies of two cadres[4] in the same inner-city middle school using the Inquiry Process in order to show the multi-layered interactions of big wheels and little wheels. While little wheels can spin-off of every part of the accelerated schools process, we have chosen to illustrate this

[4]These case studies are drawn from the Accelerated Schools Resource Guide (1993) Jossey-Bass.

interaction through the example of the Inquiry Process because this process is on-going in schools and continuously produces systematic changes over the years. Furthermore, Inquiry explicitly builds on the creativity and experience of the school community, thereby providing a fertile ground for both whole school changes and individual initiatives.

The first case study is that of a Family Involvement cadre's inquiry into a relatively specific challenge area. The second case study is that of an Instruction cadre's inquiry into an extremely broad challenge area. The cadres, using the Inquiry Process (a big wheel), collaboratively research, experiment, and self-assess their work. In this way they create schoolwide changes bringing the school closer to its vision. As a result of participating in the big wheel practice of inquiry, individuals and small groups spin off little wheels producing innovations and change on a smaller scale.

Following the two cases, we will describe how we, the ASP staff, learned from being involved in the big wheels of Inquiry in the two cases and how a big wheel in our model gets refined by our working together with practitioners in the schools.

The Inquiry Process

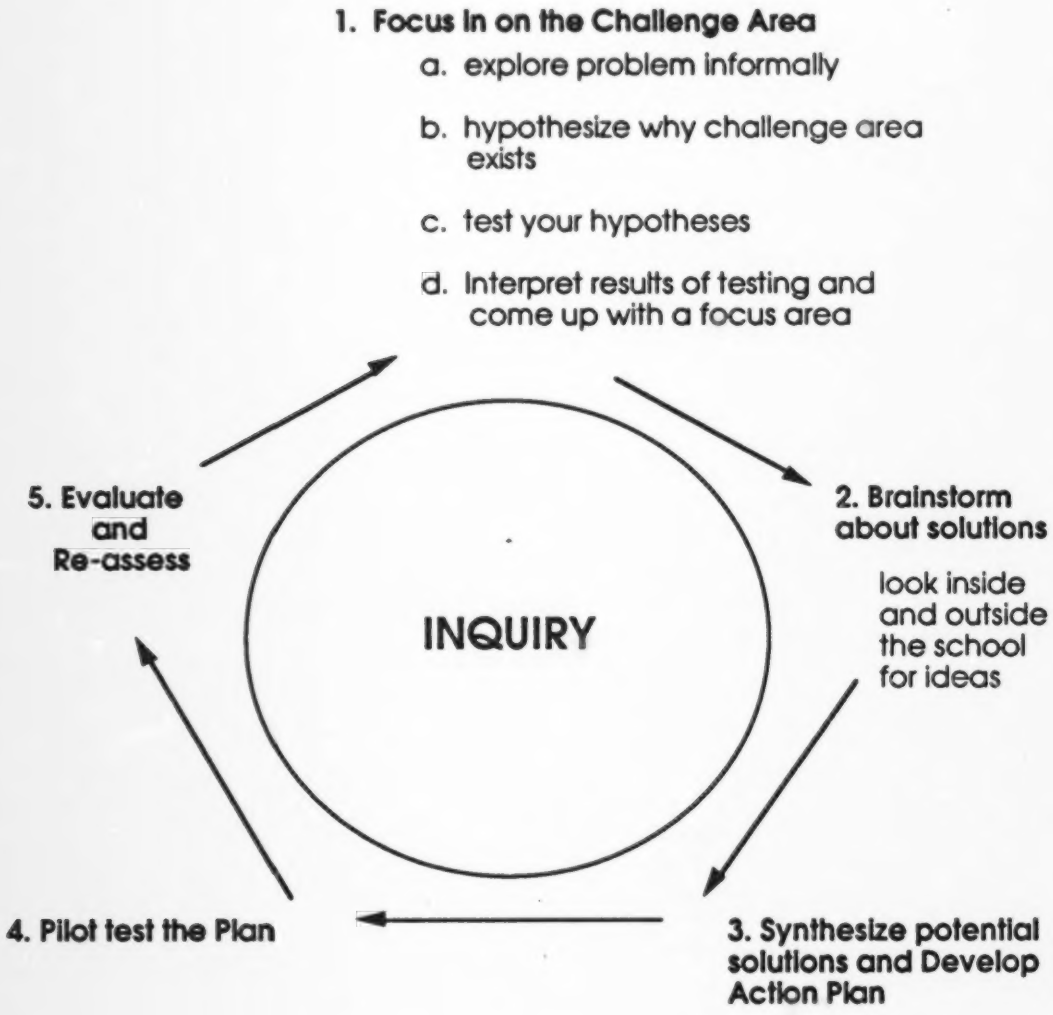

1. Focus in on the Challenge Area
a. explore problem informally
b. hypothesize why challenge area exists
c. test your hypotheses
d. Interpret results of testing and come up with a focus area
2. Brainstorm about solutions
look inside and outside the school for ideas
3. Synthesize potential solutions and Develop Action Plan
4. Pilot test the Plan
5. Evaluate and Re-assess
INQUIRY

Diagram 1: The version of the Inquiry Process used by the two cadres at the time of the case studies.

CASE 1: Inquiry in the Family Involvement Cadre

Stage 1: Focus in on the Challenge Area

a. Informally explore the challenge area and b. hypothesize about why challenge area exists

The cadre began as the "Parent and Community Cadre," but by the end of the first meeting, the staff, parent, and student members decided to focus on parental support of students (a role sometimes played by aunts, uncles, grandparents, etc.) and thereby changed the cadre's name to the Family Involvement Cadre. The cadre set out the initial dimensions of their challenge area from setting priorities. Parents were not involved in school as evidenced by their low turn out at parent events and the low response rates to notes sent home from school and on the parent survey. Cadre members tried to define the ideal family involvement would be to them and to the rest of their community. Over the course of a few meetings, the cadre agreed that to them, the goal for family involvement would be *positive and active support for students both at school and in the home.* During the meetings the cadre spent defining family involvement, the cadre also engaged in an exploration of the challenge area and hypothesized about its underlying causes. Teacher, parent, student, support staff, and administrative cadre members each offered a unique perspective on why they thought family involvement was a challenge for their school. The student members spoke honestly about their feelings about having their parents more involved in their education. These feelings varied from pride to embarrassment.

In order to gain the fullest perspective possible, the cadre also explored the problem with others who were not on the cadre. Between cadre meetings, each member informally asked at least five parents, teachers, support staff, administrators, and/or students to discuss the issues surrounding family involvement. One parent on the cadre contacted 15 Spanish-speaking parents by phone to explore the problem. This informal exploration helped the cadre in developing the most representative hypotheses. The more the cadre members talked to parents, the broader their perspective became. For example, one hypothesis, that parents feel like second class citizens at school, came from this informal exploration outside the cadre. (*Here, we see that problem exploration, definition, and hypothesis generation are interrelated).*

During Stage 1 of Inquiry, the cadre developed a list of 25 hypotheses they wanted to test.

- Some parents have negative feelings toward the district. The district promised that their children could attend the schools which emphasized the areas they were interested in (i.e. music, computers) However, when predetermined quotas were filled, children were denied access based on their race.
- Working hours of parents conflict with school activities.
- Family problems, such as parents in jail or abusive behavior, preoccupy some families.
- Some children live in foster homes.
- Parents do not trust the school or teachers.
- Some parents do not speak English, and are afraid to try to communicate.
- Parents who may not have received much formal education look upon the school as a "Holy" place, and are afraid to come. They feel embarrassed and out of place.
- Parents do not feel equal at the school. They feel they are not as important to their child's education as the teacher is.
- The feeling of a close, tight-knit community is lacking, perhaps due to desegregation efforts and bussing.
- Most communication parents receive is negative.
- Parents may be "burnt out" by the time their children reach middle school. In elementary school, they deal with only one teacher, whereas in middle school, they must deal with several.
- Parents are not invited, and they do not feel welcome.
- Students do not want their parents to be involved.
- Parents do not like the way their own children treat them at school.
- Students do not like the way their parents treat them at school.
- Many families are run by a single parent.
- Many kids do not have fathers at home.
- Parents and students may fear retribution or revenge. They are afraid that if parents complain, the teachers or the school will take it out on them.
- There is a lack of understanding among parents that they can be involved at home, ie. providing adequate time and space for a child to do homework, etc.
- Parents do not have anything substantial to do when they come to school. They do not know what to do.
- Parents do not know how to deal with adolescents and need help.

- Teachers are reticent to talk to parents. Perhaps they have had a bad experience or have not had success when contacting parents.
- Parents are sometimes treated unprofessionally at schools. Appointments are not kept or there are many interruptions.
- Expectations of communication are unrealistic.
- Some parents refuse to come to school and give no reason. They will not even discuss it.

c. Test the hypotheses

Within a few weeks, the cadre was ready to more formally test their hypotheses to gain a more accurate understanding of which of the 25 hypotheses helped to explain why families in their community were not more actively involved in their children's education both at school and in the home. After some random attempts at testing such a wide array of hypotheses, the cadre members decided to group them according to the following categories: negative parental attitudes toward school, student attitudes, restrictions on parent involvement, and problems residing in the school. In order to test these sets of hypotheses, they decided to gather a group of parents for a discussion. A discussion with a representative group of diverse parents, they felt, could give them a sense of which hypotheses were accurate explanations of their challenge area. Then they could search for appropriate solutions.

The cadre decided to use the school's upcoming Open House night to solicit names of parents who would be interested in attending a focus group/dessert meeting to discuss issues surrounding the challenge of family involvement and give the cadre a sense of which hypotheses were most accurate. Since the Open House was a pre-planned event, the cadre asked the steering committee for permission to help host the event. In hosting the event, the cadre wanted to accomplish three things. *First*, they wanted to obtain volunteers for an eventual focus group of parents to help them determine if their hypotheses were on target or not. To obtain volunteers for the focus group, the cadre distributed a three question survey to parents at the Open House as they entered the door. By turning in the survey, parents would be entered

for a door prize. The survey said:

> I would like to help reach our vision at our school.
> *(Then they had three choices)*
>
> - I want to help our school understand the area of family involvement.
> - I want to serve on a committee with teachers and students to help achieve the vision.
> - I want to be involved, but I don't know how.

The *second* reason the cadre wanted to help host the event was so that they could do something good and concrete with families while they were still working to understand their larger underlying challenges. Toward this end, they decorated the cafeteria with felt banners from countries around the world, placed colorful placards with quotes from the school's vision on each of the tables, incorporated student and parent speeches in many languages about accelerated schools as part of the program, offered nametags, and took family portraits in the library.

Third, the cadre wanted to ensure that the parents (and especially the parents of incoming sixth graders) understood what the Accelerated Schools Project was all about. *(Here we see the cadre taking responsibility for improving things while they were gaining important insights into their long-term challenge area. They had enough of a sense of their challenge area to know they did not have to wait until the end of the Inquiry Process to make small changes, such as speaking to parents in their native languages, or decorating the cafeteria with poignant quotes from the vision, or to taking family portraits of the many members of their school community who do not own cameras.)*

The cadre followed up immediately on the 100 parent survey responses with a letter (translated as necessary) inviting them to a dessert meeting/focus group. Follow-up phone calls were planned, but time was short, and unfortunately few were made. The cadre meeting before the focus group night was devoted primarily to dividing up roles and responsibilities, and determining how to structure the meeting. The primary goal of the evening meeting was to test their hypotheses by involving parents in small group discussions about factors that impede family involvement, but they also wanted to take the opportunity to bring parents into the entire accelerated schools process.

Although 100 surveys were returned, only 10 parents actually attended the meeting, a fact that did not seem to erode the enthusiasm of the Family Cadre members and administrators present. The student cadre members greeted each parent and showed them to the dessert table. Various members took turns describing the accelerated schools philosophy and process, sharing a slide show from the vision celebration, and discussing the various opportunities for participation on cadres.

The majority of the evening was spent in small group discussion centered around understanding the obstacles to supporting students both in the school and at home and how to overcome those obstacles. At the end of the meeting, the small groups reported out. In addition to learning more about which hypotheses "held water," the cadre also learned about some possible solutions they could eventually pursue. For instance, the parents volunteered to start a family room and serve as hooks for involving other parents. This idea caught on and all ten parents began excitedly sketching out how they would like the Family Room to work and when they could use it.

Although the cadre had hoped for a bigger turn-out, they felt the meeting was a success since they had identified a diverse core of committed parents, who represented <u>all</u> ethnic groups at the school and who were anxious to help bring in their peers. Because the turn-out was lower than expected, the cadre also conducted phone interviews with parents to further test their hypotheses.

(Because of the low parental involvement in the formal hypothesis testing process, the cadre could not conclude that some of the unconfirmed hypotheses were necessarily false. The parents who do not trust the school or feel comfortable answering questions were probably not the ones to attend the Open House or respond to questions over the phone. In order to understand why these parents are not participating, the cadre may have to return to Stage 1 of Inquiry in the future. At the same time, this initial connection with interested parents may lead to increased involvement from which the cadre can expand and build outward.)

d. Interpret results of testing and come up with a clear understanding of the challenge area

After the focus group meeting, the cadre compared the ideas and suggestions of the parents to the hypotheses generated by the cadre and were pleased that these parents appeared to confirm some of their hypotheses. The cadre members also divided up the parents' suggestions into categories of: communication, public relations, obstacles to participation, and need for specific information. This would guide the cadre in searching for solutions. As they approached the end of the 1990-91 school year, the Family Involvement cadre had a clear focus area on which to concentrate in the coming school year.

In the fall, one of the first things that the Family Cadre did was to re-visit the May focus group meeting and study the findings so that they could re-establish which hypotheses held water and begin brainstorming solutions to address their focus area. Out of the original list of 25 hypotheses, the following three hypotheses were confirmed by the parents: "Parents don't always know where to take their concerns," "Communication is scarce and many time negative," "Some parents are reluctant to criticize the school when they feel something is wrong or needs improving," and related to that "Some parents feel like second class citizens when they come to the school." *(This last confirmed hypothesis is especially noteworthy in that it forced the school community to take responsibility for the problem. This responsibility is unique, because many accelerated schools have focused their hypotheses on the shortcomings and lack of responsibility of parents. Having parents on the cadre helped the cadre members come up with a more well-rounded set of hypotheses.)*

Stage 2. Search for Solutions

Focusing on these confirmed hypotheses, the cadre worked on generating ways to better communicate with parents and make them feel more welcome. The cadre had been saving a list of solutions they had come up with during Stage 1 of their Inquiry Process, including ideas from other schools, the research literature, and successful strategies that were going on inside their school that had to do with making parents feel welcome and building on strengths of the students, staff, and parents. Finally, the cadre members also returned to the ideas suggested by the parents at the focus group/dessert meeting.

Stage 3: Synthesize Solutions and Develop an Action Plan

a. Synthesizing brainstormed solutions

After considering their focus areas and all of the ideas and information gathered last spring and during the early fall by looking inside and outside the school for ideas, the group decided to move forward on plans for a Family Room and a Family Newsletter. Based on the confirmed hypothesis that parents often feel "out of place," and like "second-class citizens" when they visit the school, the Family Room was conceived as a comfortable space for parents to relax, consult with other parents or teachers, see their children's work displayed, find out about volunteer opportunities within the school, use the telephone, read, work on a project, or do just about anything. The cadre members were anxious to call the excited parents who had promised to help create and run the Family Room last spring.

A second solution that emerged from their search was to reach out to parents and families through the establishment of a weekly family newsletter that would go home with students and that would give lots of positive information in different languages to parents on a regular basis.

b. Developing Action Plans

The Family Room

Planning for the Family Room was the primary activity of the cadre throughout the fall of 1991. The group's first task was to present the idea to the steering committee, and to request the use of one of the spare rooms in the school. The steering committee was in favor of the proposal, but couldn't automatically give a room to the cadre because many other groups, for example, the humanities department, were also in need of more space. It was decided that the school-as-a-whole should make the decision, and at their next meeting, the SAW did approve turning a spare classroom in a prime location into the Family Room. *(This unanimous school-as-a-whole approval illustrates a growing unity of purpose in the school in that many groups gave up their requests for using the room because they felt that establishing the Family Room would help them move toward their shared vision.)*

The cadre turned then to planning the details of setting up the room, stocking it with various supplies and refreshments, staffing it, and getting the word out to parents in the community that it was available. From the very start of the discussion on these issues, the cadre felt that they must include parents in these

decisions. (*Because so much time had elapsed between last May, 1991 when the ten parents conceived of the Family Room and November 1991 when the Family Room began to be a reality, the cadre had trouble re-gaining the momentum from the parents that had volunteered to help. Summer vacation was an interrupting factor they could not control, but it definitely contributed to a loss of momentum by those parents who felt ownership of the idea of a family room.*)

The cadre realized that they needed to recruit new parent collaborators who could contribute their ideas as to the purposes of the Family Room before delving into painting walls and decorating the room. For these reasons, a subcommittee of two teachers and one support staff member was formed to hold a meeting with parents and solicit their input. Unfortunately, the cadre still had not come up with an effective means of contacting parents. Letters were sent home about the meeting, but only one parent showed up. In late October, however, the group decided to set a deadline for setting up the room to coincide with the school's Holiday Dance on December 13, and to set up the room with or without parent input, but to continue to solicit this input and to be very receptive to parent ideas at all times. Various subcommittees were formed: the Opening Night Committee, the Room Set-up and Painting Committee, etc.

The process of planning and set-up was handled efficiently and cheerfully by all cadre members (and even a few from some other cadres). Some members came in on a Saturday to paint the room, and stayed after school hours to finish the job. One cadre member called General Electric, the school's corporate sponsor, and got them to donate furniture for the room. The group decided to create a flier for guests describing the room and stating its hours. At first, no one would volunteer to write it up. Finally, a teacher's aide in one of the special education classrooms said she would take a crack at it, although she initially felt insecure about her ability to write clearly. Two other cadre members volunteered to help her, and all three stayed after school one day to draft the flier. The cadre was very excited about the grand opening, and felt strongly that there should be a school representative there at all times. They were ready for the opening night. They had a log book to keep track of visitors. Also, cadre members planned to interview parents informally when they visited. (*The school was "in between a rock and a hard place." Although they desperately needed parent participation to flesh out the purpose and plans for the family room, they were frustrated by their inability to recruit parents' input. Yet, the*

entire cadre was formed to address the challenge of family involvement. What sometimes occurs is a ripple effect. A few parents' involvement will lead to more and more. The cadre should not abandon hope.)

The Family Newsletter

The second action plan that the cadre developed during the fall was the creation of a weekly family newsletter. In an effort to address their focus area, the cadre planned that the newsletter would contain positive information about upcoming events at the school, recognition of students and parents for outstanding achievements, calls for volunteers in teachers' classrooms or for special projects, advertising for the Family Room, highlights of steering committee minutes, or any other information that would be useful and interesting for parents. The cadre was very sensitive to the diversity present in the student body, and made a commitment to have the newsletter translated into several languages each week; students could help with this task. While the cadre was very excited about this idea, group members were aware that other teachers might think of a newsletter as more work for them, and might not support the concept. When the cadre brought the idea before the school-as-a-whole, they were surprised that the proposal was accepted so enthusiastically. Teachers, other staff, and students were eager to communicate more with parents, and the newsletter was seen as a handy vehicle to do so. The cadre divided responsibility for producing the Newsletter. One cadre member serves as the editor, and another handles the layout and production of the Newsletter.

Stage 4: Pilot Test and/or Implement the Action Plan

Family Room–Implementation

The Family Room looked wonderfully inviting on its Opening Night. Candles and colored lights led the way to the room, and the smell of fresh coffee and home-made cookies lured people in. One corner of the room held a couch, end table and chair, and formed a separate sitting area, while the adjacent corner housed a desk, filing and storage cabinets, and a telephone. The middle of the room was dominated by a new table, donated by G.E., covered with snacks and goodies, and at the door was a long table piled high with accelerated schools information and the green welcoming fliers. Each parent was asked to sign the room's guest book, which one of the teachers aide's had made by hand. Soft music from a teacher's tape player filled the room.

Despite wonderful preparations, only a handful of parents visited the Family Room for the grand opening. Again, much to the cadre's disappointment, none of the parents had received their invitations. They found out later that there had been a problem with the mail. The cadre became aware that they needed to continue working on the challenge of contacting parents with sufficient lead time to allow for external problems beyond their control. Those parents who did come, however, were extremely pleased with the room, and stayed for more than an hour, on average, chatting with the various cadre members and sharing their views.

Beyond opening night, the cadre has been assessing how it can make better use of the parent room. Much of the evaluation that is going on at this time is formative in nature and is feeding directly back into implementation. Recent cadre meetings have focused on how to spread the word about the Family Room and draw more parents. The cadre has held meetings with groups of parents to further understand the nature of their challenge and the family room's initial low turn-out. They have found that parents are very rational; they do not want to leave their homes or work to sit in a relatively bare room. They requested that the room be plastered with information, volunteer activities be posted, minutes from the cadres, steering, and school as a whole to be posted, student work to be displayed – basically they want action! Staff on other cadres are reaching out to help as well. The Culture Cadre at the school plans to hold a meeting on gang awareness for parents in the room. One physical education teacher suggested opening the room during the two nights a week that basketball games are held at the school, and his idea was met with strong approval. Cadre members are aware that the grand opening of the Family Room on December 13 was just the beginning of the process of involving more parents in the school. They are committed to understanding their challenge through the process of Inquiry, and to constantly re-assess their progress.

The Family Newsletter Pilot Test

The *Family Newsletter* was designed as a pilot test to run for the last few months of school. These initial issues ran smoothly and with wonderful reviews. Many of the staff have eagerly contributed descriptions of creative classroom learning experiences; the principal includes a note in each issue, student writing is highlighted, students are recognized for positive things; upcoming events are advertised; and parents are notified of important upcoming decisions.

The newsletters have already gotten more parents involved at school in different cadres and on the steering committee. The Newsletter also seems to serve a bonus role of highlighting much of the wonderful accelerated instruction that is occurring in the school.

Stage 5: Evaluate and Reassess

Family Room

Because of the many challenges the cadre has faced in implementing the family room, they feel it is too early to conduct a formal evaluation of the parent room. In the meantime, they are using Inquiry to formulate strategies for trying to recruit as many parents as possible to not only use the parent room, but also help the cadre assess the purpose of the room and revise their plans accordingly.

Family Newsletter

In terms of the parent newsletter, the cadre decided to go from the initial pilot test to full scale implementation next year. This decision was based upon informal comments about the publication from staff and a parent survey on readership and interest that was both sent home and conducted at Open House. The cadre plans on mailing the first issue to every student's home address so that all parents will be sure to receive it and will be informed at the start of the school year that the Family Newsletter comes home every Thursday!

Here we see Inquiry as a cyclic and interactive process rather than a smooth and linear one. Continual hypothesizing and re-testing is balanced with taking action and reflecting on it. Sometimes the very nature of a challenge prevents one from understanding it completely at first. In the case of this challenge, family involvement may involve very different issues for different people. The challenge as it relates to certain families may be understood before others. As these families become involved they will provide an expanded base from which the cadre can move outward. The process of solving complex problems takes time. This is why top-down solutions don't work and why we believe that communities must engage in careful inquiry and solve their problems for themselves.

CASE 2: Inquiry in the Instruction Cadre

In setting priorities at the same school, the staff decided to have a cadre for instruction/achievement based on a gap between their taking stock findings and their vision for the future. Specifically, they found that students entered their school scoring below the district average on standardized tests and left the school scoring even lower. Although most of the cadre members felt satisfied about their own teaching, they also realized (through the taking stock reports) that lectures and worksheets were the most frequently used instructional techniques at the school at the time. All of these findings were far from the school's vision of success for all students through active and meaningful learning experiences. The following case study outlines how the Instruction Cadre has begun to address the long-term challenge of improving instruction by using the Inquiry Process. The case is told from the point of view of one of the cadre members.

Stage 1: Focusing in on the challenge area

Step a. Exploring the challenge area informally and b. hypothesizing why the challenge area exists

Because we chose to tackle the entire area of "instruction," rather than a single aspect of it, our cadre had a difficult time focusing in on the challenge. After some discussion, we began with a general analysis of the taking stock report with respect to achievement. Our first reaction to the low test scores was to blame the students. After all, they came to us from elementary schools with their study habits already established. They don't come prepared to school. They don't bring their binders. They don't bring pencils. Most of them don't do homework. They don't care about learning. They don't have respect for each other. And they do not respect the teachers. For all of these situations, we found immediate solutions: detention, a stricter homework policy, calls to parents and to let them see how their children act,

not allowing students into the building if they do not come prepared, and many more in that same vein. Finally, one of our members pointed at the inquiry chart on the wall, and reminded us that we were jumping to solutions before we had even defined the problem. She suggested that we try to think in a less negative way as well.

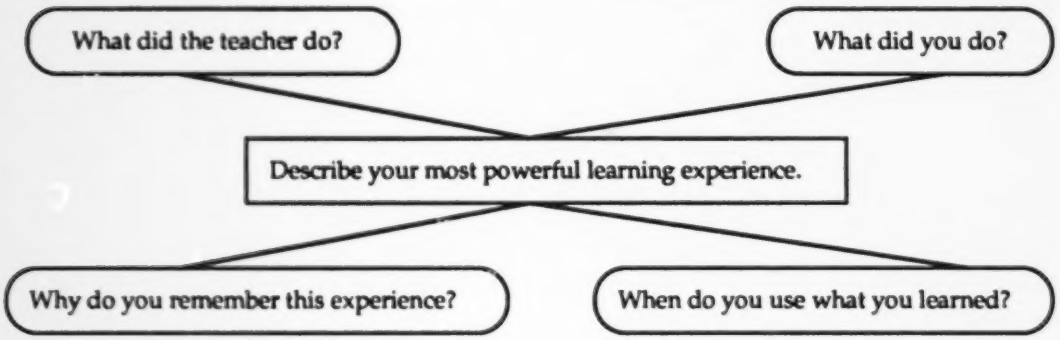
After some discussion, we all agreed that if children had fun learning or had some intrinsic satisfaction when they learned something, they would come prepared and they would actively participate. We had an excellent example for this at our school: The music teacher had an amazing jazz band and jazz choir. Students who participated in these groups came to school early on their own doing, many lugging their instruments along because they had been practicing at night. These kids were not our "best" students. In fact, some of our more problematic students were in his jazz band and in his jazz choir. And yet, here they came prepared, they practiced innumerable hours, repeating the same pieces over and over until they were satisfied with their performance; they learned to improvise and be creative. Why couldn't this commitment and dedication to learning carry over into the other classrooms?

Based on our own collective experience as teachers and learners (students were members at several of our cadre meetings), we developed a broad hypothesis about powerful learning. Since we chose such a broad challenge area, our hypothesis was also broad. The steering committee tried to get us to make a list of hypotheses for one aspect of instruction, but we all felt that we wanted to tackle the whole thing under the umbrella of powerful learning. Our "umbrella" hypothesis was that learning can only occur when students are interested in the subject or topic; when what they learn is somehow relevant to their lives; and when they can use all their abilities building on their strengths.

Some of us felt that we had jumped from an implicit understanding of our problematic situation (*our students do not want to learn)* to a conclusion about what powerful learning is. They urged the rest of us to make the logical connection between the two statements explicit: *Our students do not want to learn, <u>because</u> the school does not provide enough powerful learning experiences.* This was indeed a more appropriate hypothesis.

Step c. Test your hypotheses

In order to confirm or disprove this hypothesis, we decided to ask our students what powerful learning was to them. We developed a survey instrument and used it as an assignment in all of our classes. We felt that this was a good research design since our cadre membership represented each grade level and subject area. Each of the teachers in our group asked their students to fill out the following web:


What did the teacher do?
What did you do?
Describe your most powerful learning experience.
Why do you remember this experience?
When do you use what you learned?

In some classes the students helped to summarize the data and to calculate percentages, in others the teacher prepared the summary. In our next cadre meeting, we analyzed the data of each teacher, and the following results emerged as characteristics of powerful learning:

STUDENT ACTIVITIES

INDIVIDUAL	GROUP	GROUP/INDIVIDUALS
role playing	hands-on activities	hands-on activities
written and oral repetition	active learning	active learning
	dramatizations	computer use
	role playing	research activities
	games	projects
	competitions	
	debate	
	field trips	

TEACHER ACTIONS AND ATTITUDES

high expectations and belief in students
supportive and motivating and insistent
(i.e. "The teacher made me do it.")
caring for each individual student and for the group
individual help
demonstration of expected behaviors
modeling of learning processes
be a facilitator of learning
give rewards

(chart continued on next page)

CHARACTERISTICS OF THE LESSONS

fun
novel, different
clear relationship to the outside world
important to current student concerns
involves students actively
interesting
useful
challenging and difficult, but within the reach of all students
dramatic/shocking
related to rewards

Most teachers felt that we had not learned anything that we did not already know deep inside, but that it was good to have these results from our own students, and to make our students aware that we as teachers and support staff are concerned with their learning and want to satisfy their learning needs. A member of the cadre also pointed out that it was important to actively acknowledge what <u>really</u> works in teaching.

Step d. Interpret the results of your testing and come up with a clear understanding of the challenge area

After we finished tallying the survey, our first school year as an accelerated school came to an end. We had not yet introduced any school-wide changes, but we felt that we had a clearer understanding of our problem: When students do not want to learn, we must motivate them and not punish them. We agreed that students needed to be actively involved if learning is to reach its greatest potential. And we thought that a way to help students learn would be to build on our findings of the student survey above. Specifically, our focus areas were to make learning relevant and interesting, to build on students' experiences, and on their best ways of learning.

We shared our findings with the school-as-a-whole and they seemed impressed with what we had done. Their interest in the findings and eagerness for us to link it to a plan of action contributed toward our impetus to move forward.

Stage 2: Brainstorming about solutions (looking inside and outside the school for ideas)

As we began our second year as an accelerated school, we had a 47 percent rise in student population which greatly increased class size – a challenge that was exacerbated by the unusually small classrooms in our school. All of us were desperate for effective instructional and classroom management strategies. Rather than ignoring these immediate concerns and continuing with our focus from last spring, we asked the entire staff their areas of greatest concern so that we could plan relevant staff development. We found that most people were concerned with discipline. Several members of the cadre, who were certified trainers of a classroom management approach by "Fred Jones," offered that as a solution and volunteered to train the rest of us.

Once this training had begun, we returned to our exploration of powerful learning strategies to address the results of the student survey. We began searching for solutions and strategies to make teaching more in line with our findings from our powerful learning survey. Throughout the late fall, we looked at the most recent educational literature. We all shared and read articles from professional journals about innovative instructional techniques, and discussed their merit.

In searching for solutions, we also explored a number of instructional strategies that had accompanying training. One that we were particularly interested in was called the "Program for Complex Instruction," a cooperative learning approach by Elizabeth Cohen at Stanford University. A few of us attended an orientation session to explore the program. We were so impressed that we also organized an orientation for our entire staff at our own school site. After the orientation, people broke off into cadres and discussed whether we should pursue the program. There was definite interest. Our cadre followed up on the interest by visiting schools that already were using Complex Instruction. We kept the school community in touch with our continued findings in this area.

In our continued search for solutions, we sometimes found ideas when we weren't even looking. The seed for many of our favorite ideas came to us as we reflected back to our retreat at the beginning of our second year as an accelerated school. At that time we we had participated a building on strengths exercise, where all members of the our school community interviewed each other in pairs, writing out

our strengths, our interests, and what we would like to share with others in the school. Our cadre remembered liking this exercise and introduced the ideas into our cadre meetings. We knew it was important to keep looking outside the school, but we thought that there were a multitude of strengths inside the school that we could tap. Many of these strengths would address our list of powerful learning elements. For example, one of our support staff members has her own cake decorating business – she could come into the home economics classes and help do a special unit on cake decorating for the holidays.

Stage 3: Synthesize potential solutions and develop an action plan

As I said, the classroom management situation was most pressing for all us in the autumn, we focused first on implementing Fred Jones. The cadre presented the Fred Jones positive approach to discipline at a school-as-a-whole meeting and received approval to begin voluntary classes for interested staff, presented by our own certified trainers.

The broader work of our cadre stemmed from the results of the student survey about powerful learning, the teacher needs survey we conducted at the beginning of the year, our interest in the Program for Complex Instruction, and the idea we liked about accessing our own strengths inside the school. We synthesized these ideas into a series of action plans. We were able to flesh out and move forward with the first two components of our plan. We planned to:

- Publish a periodic teacher newsletter with "pearls of wisdom", in which teachers present advice on specific successful teaching experiences that relate to our study of powerful learning. For this, we arranged how to collect these "pearls," who would be responsible for their collection and dissemination, what they should consist of, how to present them on a regular basis to the rest of the school community, how to keep track of them, and how to assess their influence.

- Move forward with the Program for Complex Instruction. For this, our cadre arranged a visit to a nearby middle school utilizing Complex Instruction. Teachers from other cadres and our student representatives came with us to further explore the program and report back to the SAW. We were most impressed with the cooperation and collaboration, individual accountability, thematic

approach to studies, emphasis on self-esteem, critical thinking skills, incorporation of ESL students, and strategies for evaluation. We felt that these issues were all relevant to our cadre's focus area, our powerful learning survey results, and most importantly, our school vision. After this, we identified partial funding and participants from each subject area to participate in formal training so that the program would have the potential for schoolwide implementation in the future.

We did not get to flesh out the other components of our action plan. When we return next year, we plan to:

- Organize short sample lessons for our monthly school-as-a-whole meetings
- Set up a master calendar and get substitute teachers, so that teachers can visit each other and develop peer coaching relationships
- Initiate a catalog of strengths. We plan to survey all staff - asking them about their interests, their strengths, what they do best in the classroom, what instructional strategies they would like to share, in which areas they would like to grow. Using the Hypercard program on a Macintosh, we are going to develop a catalog with all our strengths, so that we have access to our in-school resources.
- Organize a group of students to video tape teachers by request. Staff can use these tapes either privately for self-assessment or for "exemplary lessons" that will be kept on file in the media center for everyone to check out

Stage 4: Pilot test and/or implement the plan

In response to the staff concern with student discipline, the Fred Jones seminars have taken place weekly in an afternoon and morning class due to great interest. Teachers walked around with Fred Jones videotapes discussing successful and failed implementation efforts.

We also piloted the "Pearls of Wisdom" in the school's Daily Bulletin for the last four weeks of school. We divided responsibility for ensuring that at least one Pearl of Wisdom appears each day in the Bulletin, our school communities daily news sheet. The Pearls came from personal conversations and interviews with our colleagues in each cluster of the school.

We also moved forward with the Program for Complex Instruction. After SAW approval, the cadre prepared a grant to obtain funding and finalized arrangements with staff members who would attend the training during the upcoming summer months.

Stage 5: Evaluate and reassess

In regards to the Fred Jones training, discipline problems have diminished in the school. Staff feel that the Fred Jones approach is useful and want to have a half-day refresher course in September.

In our assessment of the Pearls of Wisdom, we found that concrete suggestions of activities and organizational ideas were more useful than some of the quotes and anecdotes that were submitted. We came up with the idea for thematic pearls of wisdom that would be most appropriate for the full implementation at the beginning of the school year. We are planning to save the pearls of wisdom on a database, compile them in a notebook in the media center, and post them on bulletin boards around the school as well.

In terms of assessing some of the other components of our plans, we plan to include an assessment procedure for each of our pilot plans, so that we can see which parts of the plan get effective use and which parts make a difference in student learning and achievement.

Because the Instruction Cadre chose such a broad challenge area, they had trouble following the first stage of the Inquiry Process systematically. With an area as broad as "instruction," developing a list of 10 or more hypotheses using the phrase "I think ____ is a challenge because:... " became difficult. You can see how the cadre tried to stay true to Inquiry by embarking upon a research project with the students to define their challenge area.

The instructional issues uncovered by this cadre are ones faced by the entire school community. Realizing their responsibility to the school-as-a-whole, the cadre takes time to adequately explore the challenge and craft solutions that will positively affect everyone in the school. At the same time, this case illustrates how the Inquiry Process must accommodate immediate, pressing concerns at the school. The dramatic increase in class size and subsequent influence on instruction and

classroom management could not be ignored by the cadre. Once the immediate need was assuaged, we saw how the "big wheels" of an accelerated school continued to turn, more slowly than the little wheels, but in a more structured way that addressed the underlying causes of the challenge area in a way that will lead to systematically improved instruction across the school community.

LITTLE WHEELS SPINNING OFF FROM THE CADRES' INQUIRY PROCESSES

As discussed above, little wheels are important because they give school community members an outlet for immediate action – both in terms of their wish to take responsibility for improving their current situation and in terms of meeting our natural inclination to see change happen immediately. Some of these little wheels address parts of the challenge area that the cadre is working on. However, the overall Inquiry Process inspires cadre members to initiate other innovative actions in areas that do not relate directly to the cadre's challenge. Below, we would like to highlight several of the little wheels that stemmed from the Family Involvement and Instruction Cadres' work.

Family Involvement Cadre Little Wheels:

- As the family involvement cadre developed their hypotheses, one member had suggested that perhaps one reason parents were not more involved was because they always heard from the school for negative reasons. This cadre member decided to begin systematically making positive phone calls to her students' parents. When the cadre began testing hypotheses, this teacher encouraged her fellow cadre members to begin making positive phone calls home. The cadre members reported back that parents were pleasantly surprised by the calls and their students became more involved after the phone call. The cadre has discussed the possibility of suggesting that all teachers make positive phone calls home regularly and has brought this up with the school-as-a-whole.

- At the school's annual Open House, the cadre had enough of a sense of their challenge area to know they could make some changes that would definitely

make the school a better place as they searched for volunteers for their focus group. As described in the cadre's "testing hypotheses" activities above, the cadre made specific efforts to make parents feel welcome and important (welcoming parents in their native languages, organizing student speeches in several languages, placing vision placards on table, and taking family portraits), while also enlisting the assistance of over 100 parents.

- When the cadre gathered the parent focus group in order to test their hypotheses, they realized they needed to provide a context for their Inquiry before asking parents to confirm hypotheses. To motivate the parents to become more involved in the accelerated schools transformation process, the cadre took this opportunity to give the parents a description of the accelerated schools model, by having various teachers describe the philosophy and process and showing slides of the vision celebration. By the end of the meeting, the parents had a deeper understanding of the accelerated schools model and how their involvement in the focus group helped the cadre move along in their Inquiry Process. As discussed above, the parents were also very excited about starting a Parent Room.

- As the family involvement cadre members have experienced the value of the Inquiry Process, they have been sparked to apply it in other areas of the school. For example, one of the cadre members, a resource teacher who coordinates the student service club, has encouraged the students to use the Inquiry Process in their club activities. After the 1991 Oakland, CA fire, the students wanted to help the victims by sending blankets. The resource teacher encouraged the students to analyze the victims' real needs before sending their contributions. By exploring their "challenge area," the students found out that the victims really needed canned food. As a result, the service club sponsored a canned food drive and its members felt especially committed due to the research they had done and the fact that they had become directly involved with the victims.

<u>Instruction Cadre Little Wheels:</u>

- At the beginning of the first year of the accelerated schools process, many of the teachers favored traditional instructional strategies, such as lecturing, and using the textbook and ditto sheets, a fact confirmed by the taking stock survey results. One such teacher on the Instruction Cadre was so influenced by the cadre's

Inquiry into powerful learning and more specifically, the results of the student survey, that she totally transformed her style of teaching during summer between the first and second years of the accelerated schools process. After years of lecture and seatwork, this teacher began experimenting with vastly different strategies that would make learning relevant and interesting and build on student strengths and their various ways of learning. For example, on a random day, one might find students in this teachers' class sorting through a bag of trash she brought in from her own home. Similar to archeologists at a dig, they were to analyze each piece of trash and come up with a valid hypothesis as to the characteristics and make-up of her household. This exercise was a pre-cursor to a unit on comparing civilizations and culminated with a cooperative learning project centered on building a time capsule characterizing the United States society. Students in this teacher's classroom are excited, motivated, and deeply engaged in their work.

- Another member of the Instruction Cadre coordinates the work of the Student Council. She has totally embraced the Inquiry Process and has trained the Student Council members to use it in their work. For example, when the school experienced the 47 percent increase in student population, the school lunch period became chaotic with many students left unserved in the time limit and were therefore late for classes. After using the Inquiry Process, the Student Council came up with an idea for a pilot test. They organized a staggered release system for lunch period. The system worked well on the very day it was first implemented and the students had a real feeling of empowerment.

- When the discipline problems accompanying the 47 percent increase in student population overwhelmed the staff, the cadre acted quickly to meet the staff's needs while building on their own strengths through the provision of the Fred Jones training. While the cadre knew that better instructional methods would eventually address the discipline problems, they wanted to help the staff with an immediate concern.

ASP LEARNING FROM TWO CASES

The interaction of big wheels and little wheels at accelerated schools helps push each school community's transformation process forward. As we have shown above, many types of little wheels spin-off of the big wheel practice of Inquiry, some of which are so powerful that they produce some whole school changes (i.e. staggered lunch).

At the Accelerated Schools Project level, we also have observed a similar interaction of big wheels and little wheels. For ASP, the big wheels are our continual development and refinement of the model, and the little wheels are the informal experiences we have on a daily basis through collaborating with those "living" the model at participating schools. For example, by working and talking with teachers in cadre meetings and other school processes, we gain experiences that we may then transform into new training ideas and exercises. This interaction influences how we perceive the formal model (big wheels) and allows us to transform it as well.

In the two case studies described above, our participation on the cadres has led to our own little wheel discoveries that have produced refinements in the Inquiry Process and how we transmit it. Below, we describe what we have learned by participating on the cadres and how these lessons have affected our model. The lessons fall into the categories of the iterative nature of the Inquiry Process, Methods of Hypothesizing, Cadre Membership, and the Role of the ASP Coach. You may recognize some of these lessons from the italicized notes in the case studies.

The Iterative Nature of the Inquiry Process

When we initially conceptualized and shared the Inquiry Process with schools, we viewed it as a cyclical process with five stages that cadres would pass through consecutively. Our experience with these cadres illustrates that these five stages are extremely interrelated and the process is much more iterative than linear.

Interrelatedness of the four sub-stages of Stage 1 of the Inquiry Process

Within the first stage of Inquiry, we set out four sub-stages – explore problem informally, hypothesize why challenge area exists, test hypotheses, interpret results of testing and come up with a focus area. As coaches on the cadres, we assumed that the cadres would need to complete each one of the sub-stages before proceeding to the next one. We discovered, however, that problem exploration, hypothesis generation, and "final" problem definition were interrelated. Moreover, in order to create an initial understanding of the challenge area, cadres needed to interpret the part of the vision that their challenge area fell short of. (Cadres are formed by the priority "gaps" between the school's taking stock data and the vision statement.) For example, the family involvement cadre could not begin to hypothesize about why parents were not involved until they had discussed what family involvement meant to them. . Once they had defined family involvement, they transformed it into an explicit goal related to their unique vision – active support of students both in the school and at home.

Once the family involvement cadre had defined its goal, the members began hypothesizing among themselves, which was followed by an informal exploration of the challenge with others who were not on the cadre. These informal explorations with other members of the school community led to the

generation of more hypotheses as well as an informal testing of the hypotheses they had initially generated.

As you recall, the family cadre chose to formally test their hypotheses through a focus group of parents. This testing exercise led to the confirmation of 3 out of the 25 hypotheses, which led to solutions which were appropriate to the 3 confirmed hypotheses. Given that the two solutions they eventually pilot tested had different levels of success, the cadre members discovered that they needed to return to their list of 25 hypotheses to see if there were others which may be additional explanations for their challenge area. They also felt that they needed input from a larger group of parents to validate their hypotheses (and even come up with more) than those who attended the focus group.

This and other experiences has led us to revise the first stage of Inquiry to include the following sub-stages to include: initial definition of challenge area, explore challenge informally and hypothesize why challenge exists, test hypotheses, and interpret the results of the testing and come up with a clear understanding of the challenge area. These stages portray how the definition of a problem changes over time from an initial definition related to a goal to a working definition that can be used to search for solutions. In our writings and training, we now stress the iterative nature of these sub-stages and the Inquiry Process as a whole.

Balance of Reflecting and Doing Something Concrete

Earlier in this paper, we described several reasons why little wheels are crucial to the accelerated schools transformation process. By participating in the cadres, we learned first hand why maintaining a balance is so important. For instance, the

natural inclination to see immediate change can be exemplified in family involvement cadre by the teacher who made positive phone calls to parents. She was able to balance the long-term work in the cadre with some concrete action of her own. Another example occurred in the instruction cadre with the member who totally changed her teaching style based on her cadre's Inquiry. Her changes in her teaching style exemplifies taking individual responsibility. In the two preceding examples, the results of the little wheels were fed back into the cadre's Inquiry. The instruction cadre also exemplified a situation in which there was a need for immediate action when they provided the Fred Jones training in response to the school's pressing discipline problems.

Broad vs. Specific Challenge Areas in the two Cadres

While both cadres had the same training in Inquiry, read the same Inquiry materials, referred to the same Inquiry schematic, and indeed belonged to the same school community, they ended up applying this training and information in different ways. The Family Involvement cadre developed a list of 25 specific hypotheses as to why family involvement was challenge for their school.

The Instruction cadre, on the other hand, had an initial understanding of their challenge as "learning can only occur when students are interested in the subject or topic; when what they learn is somehow relevant to their lives; and when they can use all their abilities building on their strengths." They then took this problem definition and transformed it into one broad, overall hypothesis on which they chose to focus, "students have difficulty achieving because the school does not offer enough powerful learning experiences."

Despite our expectations for a more uniform application of the Inquiry Process, we found that individual cadres develop a group personality that interpret the Inquiry Process uniquely. We also learned that when the problem definition is broadly defined, the cadre has more trouble moving through Stage 1 of the Inquiry Process and articulating specific solutions. Alternatively, when problems are specifically defined, the cadre members need to take care to keep an eye on the broader vision so that the solutions do not become piecemeal projects that are unrelated to the big picture.

Method of Conceptualizing Hypotheses

The Inquiry Process in general and the word "hypothesis" specifically present a challenge to schools. After years of operating under conditions where problems typically were solved outside the school building, this challenge should be no surprise. We tried to overcome this by helping schools conceptualize the causes of their challenges as hypotheses by asking themselves questions about their challenge area. By working with these cadres over time, we have collaboratively constructed new ways of helping schools develop hypotheses. We now encourage schools to develop hypotheses statements in response specifically to *why* the challenge exists. For example, I think ___ is a challenge because: x, y, z. We are also using synonyms for hypotheses, such as exploring the underlying causes of challenges. Having a variety of ways to describe the meaning of hypotheses helps cadres with both broad and specific challenge areas in moving through the first stage of Inquiry.

Membership in Cadres

In the earlier accelerated schools, cadres were constituted of teachers, some support staff, and some administrators. At the school where the case studies took place, we encouraged the school to form cadres that were fully representative of their school

community. In both case studies, cadre membership included teachers, support staff, administrators, parents, and students. We discovered that the different perspectives these diverse members brought to the problem definition and analysis enriched the entire cadres' and school's work. The diversity clearly prevented the school from overlooking important realities that had been consistently ignored in schools without such a diversity of cadre membership. For example, in the family involvement cadre, a parent brought up one of the most cogent hypotheses – that parents feel treated like second class citizens at the school. This statement made the school take responsibility for the lack of family involvement and turned them away from looking only at shortcomings in the families as reasons for their lack of involvement. Likewise, in the instruction cadre, the presence of students was crucial to the understanding of the relationship between powerful learning and powerful teaching strategies.

Role of ASP Coach

Although we conduct a full day of initial Inquiry training, we have learned that school communities truly grasp the Inquiry Process over time by applying it in their cadres. For this reason, we initially participated regularly in the cadres as members and capacity builders. As capacity builders, we do not offer solutions or even hypotheses to the cadres, rather, we ask questions to help cadres discover their own way. By participating so intensively as members in the cadres, we were able to gain the legitimacy to ask questions in a capacity-building manner. This participation also allowed us to informally address issues with cadre members outside of the cadre meetings as the need arose, which was another form of building individual capacity. Finally, the legitimacy we gained through our initial intensive involvement has allowed us to remove ourselves gradually from the school, while

maintaining an ability to give input to the school and cadres on a more intermittent basis.

V. SOME FINAL THOUGHTS

We would like to end this paper with two additional thoughts: how all components of the accelerated schools model have the potential to spin-off little wheel innovations and how design and implementation – the model and the school experiences – are necessarily integrated.

ALL COMPONENTS OF THE ACCELERATED SCHOOLS MODEL HAVE THE POTENTIAL TO SPIN-OFF LITTLE WHEEL INNOVATIONS

In this paper, we have analyzed a growth pattern we have observed in both the contexts of schools and the Accelerated Schools Project which we have labeled "big wheels and little wheels interacting." While we have illustrated the little wheels that have spun off of the Inquiry Process, we want to stress that little wheels can spin off every component of the accelerated schools philosophy and process.

For example, the big wheel of the entire accelerated schools philosophy can spark a wide variety of innovations. In the school of our case studies, one teacher initiated an activity which he felt embodied the philosophy of accelerated schools. Using concepts from applied math, physics, and engineering, students were to design and build contraptions that kept eggs in tact when dropped from a rooftop. Almost every child in the school entered the contest, many as part of a team. Members of the school community became actively involved, business leaders served as judges, and community businesses and organizations donated prizes and materials. The "egg drop" contest was so successful that it has snowballed into an annual schoolwide event.

In the Accelerated Schools Project context, an example of a little wheel spinning off the vision process occurred when we were building schools' capacity to develop their shared vision. Our staff used to ask school staff to describe the best possible school they could think of for at-risk students. This question certainly produced some wonderful vision statements for early accelerated schools. However, during a training session a few years ago, one of our team members experimented by asking one group to describe the best possible school for at-risk students and another group to describe the kind of school they would want for their own children. The ASP staff member and both groups noted a dramatic difference in the types of visions they produced. This little wheel experiment was so powerful that it has changed the way we transmit the big wheel of forging a vision to new schools.

DESIGN IS IMPLEMENTATION: BUILDING BRIDGES BETWEEN THE SCHOOL EXPERIENCES AND THE MODEL

As we have mentioned and we can see from this last example, big wheels and little wheels build bridges between the model and individual schools. Experiences in schools lead to improvements in the model, which in turn allows schools to be more effective in their own transformation: design becomes implementation.

Recognizing the importance of little wheels in the transformation process of schools, we have explored ways of more formally weaving little wheels into our training process. For example, we encourage little wheels during training by asking school staff to design lessons for their students that would help them understand and apply the accelerated schools philosophy.

After training schools in the philosophy of powerful learning, we conduct a thorough de-briefing so that the participants understand that both big wheels and little wheels are the strategies which produce powerful learning. This type of de-briefing helps participants understand that powerful learning does not occur either solely through the group processes of accelerated schools or totally through individual initiative. By collaboratively focusing on the larger challenges and concerns of the school community, a social infrastructure emerges that is supportive of powerful learning and spurs little wheel innovations.

Because little wheels are so crucial to the keep the momentum of the six year accelerated school transformation process going, the challenge is not only to promote little wheel innovations, but also to detect them when they occur, make them public, assess them, and continually feed them into the larger school change effort. This paper represents an initial effort to document our observations of the way accelerated schools and our Project continue to learn and evolve. Over time, we hope to document and analyze a broader range of big wheel and little wheel interactions at many school sites. By finding ways to incorporate these growth patterns into the model, we will then be able to abstract from the individual school community learning experiences and share the pattern with all schools that are part of the accelerated schools movement.

References

Dewey, John (1985) "Democracy and Education". In Jo Ann Boydston (Ed.) John Dewey: The middle works, 1899-1924, Volume 9: 1916. Carbondale IL: Southern Illinois University Press

Hopfenberg, Wendy, Henry M. Levin, Gail Meister, and John Rogers (1990) "Toward Accelerated Middle Schools". Report prepared for the "Project to develop Accelerated Middle Schools for At-Risk Youth funded by the Edna McConnell Clark Foundation grant to the Accelerated Schools Project at Stanford University.

Hopfenberg, Wendy and Associates (1993) Accelerated Schools Resource Guide. San Francisco: Jossey-Bass

Levin, Henry M. (1987) "Accelerated Schools for the Disadvantaged." Educational Leadership, Vol. 44, No. 6

Polkinghorn, Robert et al. (1990) "Accelerated Schools: The inquiry process and the prospects for school change." Prepared for the American Educational Research Association's Annual Meeting. Boston, MA.